Amendments to the Claims:

Claims 24-35 are cancelled.

No claims have been amended as shown below. Underlines indicate insertions; ~~strikeouts~~ or double brackets [[ ]] indicate deletions.

1.   (Original). A system for generating a target geometric model from a source geometric model, comprising:

a server having processing circuitry and an operation manager configured to compare source geometric data of each of a plurality of features in a source geometric model with target geometric data of respective features in a target geometric model, and operative to identify discrepancies in respective features therebetween;

said server configured to rectify discrepancies in a feature after generating the feature and prior to generating another feature among the plurality of features;

a communication link;

at least one client communicating with the server over the communication link; and

an interrupt interface provided by one of the at least one client and the server and operative to notify a user of the server's inability to automatically generate an accurate representation of a feature of the source geometric model in the target geometric model.

2. (Original). The system of claim 1, wherein the server is configured to iterate, a predetermined number of time, the process of generating a feature using alternative measurements during each iteration.

3. (Original). The system of claim 2, wherein the interrupt interface notifies a user of the server's inability to rectify a discrepancy in a feature after performing the predetermined number of iterations to accurately generate the feature.

4. (Original). The system of claim 1, wherein the interrupt interface notifies a user of the presence of any identified discrepancies that are not automatically corrected by the server in response to comparing the geometric data.

5. (Original). The system of claim 1, wherein the operation manager includes a computer readable medium having computer programmable logic embodied therein which when executed by the processing circuitry translates each feature of a source geometric model received from a source within a client/server environment to a respective feature in a target geometric model.

6. (Original). The system of claim 1, wherein the source geometric data is derived from the source geometric model and the target geometric data is derived from the target geometric model.

7. (Original). The system of claim 5, wherein the computer readable medium comprises a memory coupled to the processing circuitry to store the source geometric model and the target geometric model.

8. (Original). The system of claim 5, wherein the computer programmable logic is associated with the processing circuitry and the interrupt interface, the computer programmable logic including a production control module operative to implement staged translation of the source geometric model into the target geometric model.

9. (Original). The system of claim 8, wherein the staged translation comprises:

computer programmable logic for extracting comparison reference data from the source geometric model in a source computer aided design (CAD) system;

computer programmable logic for generating a target geometric model in a target CAD system;

computer programmable logic for comparing reference data from the source geometric model with corresponding reference data in the target geometric model;

upon identification of a discrepancy in a feature of the target geometric model, computer programmable logic for iterating, a predetermined number of times, the process of generating the feature in the target geometric model; and

computer programmable logic for displaying the discrepancy to an operator at the client in the event of the server's failure to automatically correct a discrepancy in a feature of the target geometric model.

10. (Previously presented). The system of claim 9, wherein the reference data for each feature from the source geometric model is compared with corresponding geometry in the translated target geometric model in order to identify discrepancies therebetween.

11. (Previously presented). The system of claim 10, wherein the computer programmable logic for comparing reference data comprises program code for extracting point cloud data from the pre-existing source geometric model and comparing the extracted point cloud data with geometry in the translated target geometric model.

12. (Previously presented). The system of claim 10, wherein the computer programmable logic for comparing reference data comprises program code for extracting point cloud data from the translated target geometric model from different points of reference excluding the referenced point cloud data as in claim 11, and comparing the said newly extracted point cloud data with geometry in the pre-existing source geometric model.

13. (Original). The system as in claim 9, wherein the computer programmable logic for generating a target geometric model comprises

computer programmable logic for generating a user interrupt at the interrupt interface responsive to identifying a problem, in the event of the server's failure to automatically correct the identified problem, in generating the target geometric model.

14. (Previously presented). A system for facilitating a staged translation of a pre-existing source geometric model in a first format in the source CAD system, to a translated target geometric model in a second format in the target CAD system, comprising:

a server configured to compare data of each of a plurality of features generated in a first format with translated target geometric data of respective features generated in a second format, the server operative to identify discrepancies in respective features therebetween, and further configured to automatically correct discrepancies of a feature, by selectively substituting from one of: 1) a group of all possible combinations of features, dimensions, sketches, parameters and definitions supported by the target CAD system, and 2) a group of all variations of features, dimensions, sketches, parameters and definitions supported by the target CAD system in an effort to resolve the discrepancy generated in the second format prior to generating another feature; and

at least one client communicating with the server over a communication link to enable a user to interact with the staged translation.

15. (Previously presented). The system of claim 14, further comprising:

an interrupt interface configured to notify a user of the server's inability to automatically generate an accurate representation of a feature, generated from the first format, into the second format.

16. (Previously presented). The system of claim 14, wherein the server includes a storage device to store data related to each of the plurality of features.

17. (Previously presented). The system of claim 14, wherein the first and second formats are selected from the group having Pro/E, SDRC, Unigraphics, CATIA, SolidWorks, CATIA V5, and combinations thereof.

18. (Previously presented). A multi-staged feature based translation system, comprising:

a client/server environment;

a client provided in the environment and having an interrupt interface; and

a server provided in the environment and communicating with the client via the environment and having processing circuitry and an operation manager configured to compare source geometric data related to each of a plurality of features in a source geometric model with target

geometric data for corresponding features in a translated target geometric model;

wherein the server is further configured to correct feature discrepancies after generating the feature and prior to generating another feature.

19. (Original). The system of claim 18, further comprising:

an interrupt interface operative to notify a user of the presence of an identified discrepancy in response to the server's inability to correct the feature discrepancies after a predetermined number of iterations, using alternative measurements during each iteration, to accurately generate the feature.

20. (Previously presented). The system of claim 18, wherein the operation manager further comprises program code for performing actions, including:

evaluating architecture of the pre-existing source geometric model including decomposing the pre-existing source geometric model.

21. (Previously presented). The system of claim 18, further comprising:

computer programmable logic for examining constructions history detailing the manner in which the pre-existing source geometric model was built.

22. (Previously presented). The system of claim 18, further comprising:

computer programmable logic for extracting the source geometric data for each of the plurality of features from the pre-existing source geometric model.

23. (Previously presented). The system of claim 18, further comprising:

computer programmable logic for generating the target geometric data based upon a construction history used to create each of the plurality of features of the pre-existing source geometric model.

24-35. (Canceled).

36. (Previously presented). A feature based translation system for generating a desired translated target geometric model from a pre-existing source geometric model, comprising:

a processor having processing circuitry configured to compare source geometric data of each of a plurality of features in a pre-existing source geometric model with target geometric data of respective features in a translated target geometric model, and operative to identify discrepancies in respective features therebetween;

the processor further configured to rectify discrepancies in a feature after generating the feature and prior to generating another feature

among the plurality of features by selectively substituting from one of: 1) a group of all possible combinations of features, dimensions, sketches, parameters and definitions supported by the target CAD system, and 2) a group of all variations of features, dimensions, sketches, parameters and definitions supported by the target CAD system in an effort to resolve the discrepancy.

37. (Previously presented). The system of claim 36, further comprising:

an interrupt interface operative to notify a user of the processor's inability to automatically generate an accurate representation of a feature of the pre-existing source geometric model in the translated target geometric model.

38. (Previously presented). The system of claim 36, wherein the processor is configured to iterate, a predetermined number of times using different methods during each iteration, the process of generating a feature.

39. (Original). The system of claim 37, wherein the interrupt interface notifies a user of the processor's inability to rectify a discrepancy in a feature after performing the predetermined number of iterations to accurately generate the feature.

40. (Previously presented). The system of claim 37, wherein the interrupt interface notifies a user of the presence of any identified discrepancies that are not automatically corrected by the processor in response to comparing the geometric data of the pre-existing source geometric model and the desired target geometric model.

41. (Previously presented). The system of claim 37, further comprising a computer readable medium having computer programmable logic embodied therein which when executed by the processing circuitry translates each feature of a pre-existing source geometric model to a respective feature in a translated target geometric model.

42. (Previously presented). The system of claim 36, wherein the process is further configured to invoke point cloud analysis subsequent to comparing geometric data of pre-existing source and translated target models and identifying discrepancies in geometric features therebetween.